CLAIMS

1. A method for obtaining plants, tolerant to abiotic stress conditions, comprising introducing into a plant cell, plant tissue or plant a nucleic acid molecule or regulatory sequence, wherein the introduction of said nucleic acid molecule or regulatory sequence results in the presence of a Cyclin Dependent Kinase (CDK) protein that is not susceptible to inhibitory phosphorylation under abiotic stress conditions.

2. The method of claim 1, wherein said CDK is a PSTAIRE type CDK.

3. The method of claims 1 or 2, wherein said CDK is CDC2a.

4. The method of any one of claims 1 to 3, wherein said CDK is derived from *Arabidopsis thaliana*.

5. The method of any one of claims 1 to 4, wherein the CDK is free of phosphate at the tyrosine at a position that corresponds to position 15 in the amino acid sequence of CDC2a of *Arabidopsis thaliana*.

6. The method of any one of claims 1 to 5, wherein the CDK protein is free of phosphate groups at both the tyrosine and the threonine, corresponding to the tyrosine at position 15 and the threonine at position 14, respectively, in the amino acid sequence of CDC2a of *Arabidopsis thaliana*.

7. The method of any one of claims 1 to 6, wherein said CDK protein is a non-phosphorylatable CDK mutein.

8. The method of claim 7, wherein the tyrosine at position 15 of said CDK mutein is substituted to a non-phosphorylatable amino acid residue.

9. The method of claim 8, wherein said CDK mutein further comprises a non-phosphorylatable amino acid residue at position 14.

10. The method of any one of claims 7 to 9, wherein the CDK mutein comprises a Y-15->F-15 mutation.

11. The method of any one of claims 7 to 10, wherein the CDK mutein also comprises a T-14->A-14 mutation.

Sub a2

12. The method of any one of claims 7 to 11, wherein said nucleic acid molecule encodes said non-phosphorylatable form of CDK.

13. The method of any one of claims 1 to 6, wherein said non-phosphorylated form of CDK is due to dephosphorylation and/or inhibition of phosphorylation of CDK.

14. The method claim 13, wherein said dephosphorylation is conferred by CDC25 or a functional analogue thereof, capable of dephosphorylation at least the tyrosine at position 15 of the endogenous CDK of said plant.

15. The method of claim 13, wherein said inhibition of phosphorylation is conferred by the suppression of expression or activity of Wee-kinase, MIK, MYT or a functional equivalent thereof, inhibiting the endogenous phosphorylation of at least the tyrosine at position 15 of the CDK of the said plant.

16. The method of claim 14 or 15, wherein said nucleic acid molecule encodes said CDC25, Wee-kinase MIK, MYT or functional analogue or equivalent thereof.

Sub a3

17. The method of any one of claims 1 to 16, wherein said nucleic acid molecule is operatively linked to regulatory sequences allowing the

expression of the nucleic acid molecule in the plant cell.

18. The method of any one of claims 1 to 17, wherein the regulatory sequence comprises a promoter, enhancer, silencer, intron sequence, 3'UTR and/or 5'UTR region, protein and /or RNA stabilizing elements.

19. The method of any one of claims 1 to 18, wherein said regulatory sequence is a chimeric, tissue specific, constitutive or inducible promoter.

20. The method of claim 19, wherein said inducible promoter is inducible by abiotic stress.

21. The method of 20, wherein said abiotic stress is osmotic stress.

22. The method of any one of claims 1 to 21, wherein said plant is a monocotyledonous or a dicotyledonous plant.

23. The method of any one of claims 1 to 22 wherein said plant is a crop plant, root plant, oil producing plant, wood producing plant, agricultured bioticultured plant, fruit producing plant, fodder or forage legume, companion plant or horticultured plant.

24. The method of claim 22 or 23, wherein said plant is wheat, barley, maize, rice, carrot, sugar beet, chicory, cotton, sunflower, tomato, cassava, grapes, soybean, sugar cane, flax, oilseed rape, tea, canola, onion, asparagus, carrot, celery, lentil, broccoli, cauliflower, brussel sprout, artichoke, okra, squash, kale, collard greens, rye, sorghum, oats, tobacco, pepper, grape or potato.

25. A vector comprising the nucleic acid molecule as defined in claim 20 or 21.

26. A transgenic plant cell comprising at least one nucleic acid molecule as

defined in claim 20 or 21 or a vector of claim 25.

27. A transgenic plant cell comprising at least one nucleic acid molecule or regulatory sequence as defined in any one of claims 1 to 21 or a vector of claim 25 and comprising a further nucleic acid molecule that is capable of conferring to a transgenic plant an additional phenotypic characteristic.

28. A transgenic plant or plant tissue comprising plant cells of claim 26 or 27.

29. The transgenic plant of claim 28 which displays increased tolerance to abiotic stress, preferably osmotic stress, compared to the corresponding wild type plant.

30. The transgenic plant of claim 29 which displays an additional phenotypic characteristic.

31. Harvestable parts or propagation material of a plant of any one of claims 28 to 30 comprising plant cells of claim 26 or 27.

32. Use of a nucleic acid molecule or regulatory sequence as defined in any one of claims 1 to 24 or a vector of claim 25, for conferring abiotic stress tolerance to a plant and/or as a selectable marker in plants.

33. Use of a nucleic acid molecule or regulatory sequence capable of counteracting stress-induced down-regulation of cell division for the production for osmotic, preferably salt stress tolerant plants.

34. Use of a plant obtainable by the method of any one of claims 1 to 24 or the plant of any one of claims 28 to 30 for culturing on soil with a salt content of about 40 mM to about 300 mM.